**ACT Science Section Information**

The ACT science section covers content in chemistry, physics, biology, earth sciences, and astronomy. Your experience in your high school science classes will help you. However, even more important are your general pattern recognition skills and ability to reason logically from the data that’s presented to you. The good news about the ACT Science section is that using a handful of strategies can often bump your ACT Science score up a few points higher fairly quickly. Of course, even with strategies, practice is key to seeing the results you want.

Of the other sections, the Science Reasoning section is most similar in format to the Reading section. It provides selected passages for you to read, and then asks you to answer questions based on the information in them, just like the Reading section. In fact, the instructions for the two sections are virtually the same; only the topics and types of content being written about are different.

There are a total of seven passages on the ACT Science Reasoning section, which are classified into three types:

**Data Representation (3 passages)**

**Research Summaries (3 passages)**

**Conflicting Viewpoints (1 passage)**

All of the passages in this section will present both written as well as graphical information in the form of charts or graphs. The seven passages will appear in random order, but each type will always have the same number of questions, as shown below:

**Data Representation: 5 questions**

**Research Summaries: 6 questions**

**Conflicting Viewpoints: 7 questions**

It should be clear that time is of the essence on this exam: to read seven passages and answer 40 questions, you are given a total time of 35 minutes. Only by staying focused on the meaning of what you are reading, both the passages and the questions, can you hope to do your best work in the allotted time.

Content

Much of the key to scoring high on the Science Reasoning section lies in simply being proficient with vocabulary. The passages will often introduce new, big, or complicated words that describe simple concepts (one of the many things scientists are known for being good at). If you just take the vocabulary in stride, you will be halfway to maxing out your score.

The content of the passages is drawn from the following list of topics:

Biology

Earth/Space Sciences

Chemistry

Physics

As it turns out, however, knowing the content topics doesn’t help you much, because the ACT is designed to test your ability to reason from any given set of data rather than your preexisting knowledge of a given topic. The best way to prepare for the Science Reasoning section is not to study these topics themselves, but rather to answer lots of questions from practice exams.

- See more at: <https://benchprep.com/ACT/test/act-science-section-information#sthash.rTSlMVCT.dpuf>

**4 ACT Science Tricks That Will Boost Your Score**

ACT Science Reasoning Help By [Kelly Roell](http://testprep.about.com/bio/Kelly-Roell-53945.htm)

The [ACT Science Reasoning](http://testprep.about.com/od/act/a/ACT_Science.htm) section is a test filled with all sorts of questions ranging from challenging to really challenging, and it makes sense to get a few ACT Science tricks up to make sure you're getting the [score](http://testprep.about.com/od/actfaq/f/ACT_Score.htm) you really crave.

**ACT Science Trick #1: Read the Data Representation Passages First**

**The Rationale:**On the ACT Science Reasoning test, you'll see three different types of passages: Data Representation, Conflicting Viewpoints, and Research Summaries. Data Representation passages are the easiest because they incorporate the least amount of reading. They basically ask you to interpret coordinating tables, draw inferences from graphics, and analyze other diagrams and figures. In some cases, you can go straight to the first DR question and answer it correctly without reading any explanatory material whatsoever. You may just have to refer to one chart! So it makes sense to get as many points as is possible right out of the gate by answering those questions first before slogging through the lengthy Conflicting Viewpoints or Research Summaries passages.

**A Helpful Reminder:** You'll know it's a Data Representation passage if you see several large graphics like charts, tables, diagrams and graphs. If you see a lot of reading in paragraph format, you're not reading a DR passage!

**ACT Science Trick #2: Use Shorthand Notes In the Conflicting Viewpoints Passage**

**The Rationale:**One of the seven passages you'll see on the ACT Science Reasoning test will involve two or three differing takes on one theory in physics, earth sciences, biology, or chemistry. Your job will be to interpret each theory to locate it's key components, and find the similarities and differences between the two. This is tough to do, especially when the theories could be about radioactivity or[thermodynamics](http://physics.about.com/od/thermodynamics/p/thermodynamics.htm). The terminology starts getting confusing. So, use an ACT Science trick! Right when you start reading, make notes in plain language on the side of the paragraph. Summarize each theorist's basic premise. Make a list of the key components of each. List complex processes in order with arrows showing causality. You won't get bogged down in the language if you summarize as you go.

**A Helpful Reminder:** Since the Conflicting Viewpoints passage contains seven questions versus the Research Summaries' six, complete this passage right after the Data Representation passages. You'll get a higher possibility of points (7 vs. 6) with this set of data.

**ACT Science Trick #3: Cross Off Information You Don't Need**

**The Rationale:** The ACT Test writers sometimes include information that is unnecessary for solving any of the questions. For instance, on many Research Summaries passages, where there are two or three experiments to consider, some of the data inside accompanying tables, charts or graphs will not be used at all. You could have five questions about coffee bean #1, and none about coffee bean #2. If you're getting all the coffee bean data confused, feel free to cross off the unused portions!

**A Helpful Reminder:** It may be helpful to write a sentence describing the basic gist of each experiment, especially if it's complicated. That way, you won't have to reread the passage to figure out exactly what happened each time.

**ACT Science Trick #4: Pay Attention To the Numbers**

**The Rationale:** Even though this isn't the ACT Mathematics test, you'll still be expected to work with numbers on the Science Reasoning exam, which is why this ACT Science trick is key. Often, experiments or research will be explained numerically in a table or graph, and those numbers could be explained in millimeters in one table and meters in another. If you accidentally count the millimeters as meters, you could be in big trouble. Pay attention to those abbreviations.

**A Helpful Reminder:** Look for big numerical changes or differences in tables or charts. If Weeks 1, 2, and 3 had similar numbers, but Week 4's numbers spiked, you'd better believe there will be a question asking for an explanation of the change.

**ACT Science Tricks Summary**

Getting the ACT Science score you want isn't as difficult as it seems. You don't have to be a science genius who dabbles in meteorology for kicks in order to score in the high 20s or even 30s on this exam. You'll just need to pay attention to the details, watch your time so you don't get behind, and practice, practice, practice before you test. Good luck!

**How to Improve Your ACT Science Score**

The ACT Science section emphasizes reasoning above all else. Some specific knowledge of science, including biology, chemistry, and physics, is (of course) helpful. However, the most important factor in ACT Science success is the ability to recognize patterns in the data presented in graphs, tables, and maps, and to interpret questions logically in light of the patterns you’ve gleaned from the data. So graph interpretation is a very important skill for the Science section. One other very important key to success on the Science section is to realize that most problems will present you with way, way more information than you need to answer the questions. Whatever you do, don’t try to read and absorb every piece of information. The most efficient strategy for most Science problems is to read the question first and then focus on the graph, table, chart, or map which contains the relevant data. Once you learn to apply this strategy and to quickly extract data and recognize patterns, your Science score will usually bump upwards in short order.

**Here are 7 strategies that can help you improve your ACT Science Score:**

**#1 “Don’t try to read all of the information presented in each Science passage.”**

Science passages present you with way more information than you need to answer the questions. Trying to read and absorb all of that information will take too much time! The other strategies below will help you learn to focus on only the important information.

**#2 First look at any graphics such as graphs, tables, diagrams, and/or illustrations included in the passage.**

Don’t spend a lot of time on this first look, however! Just spend a few seconds getting a very quick idea of the TYPE of information presented in each graphic. With a graph, that information is in the labeling of the axes: for instance, “time versus velocity” or “wavelength versus intensity”. In a table, look for the information types in the column and row headings. Information types may also be found in a key or legend that accompanies a graphic. Once you know the types of information contained in the graphics, you can tell if you’re dealing with chemistry, physics, biology, geology, etc., and have a pretty good idea of what kind of experiment or research was conducted.

**#3 Look at is the set of questions.**

Usually, each question will tell you look at a specific graphic to find the answer. For example, a question may start, “According to Experiment 2...” or “Based on Figure 3...”

**#4 After you know which graphic the question refers you to, look for trends in data and relationships between variables.**

For example, when looking at a graph you can very quickly see if there is a direct, inverse, or other type of relationship between two variables. If there is a direct relationship, the variables will increase together and/or decrease together. If there’s an inverse relationship, when one variable grows, the other shrinks. Some relationships may be a combination of direct and inverse patterns, and may even include plateaus where a change in one variable does not affect the other one.

BE CAREFUL: make sure that data is arranged correctly. The ACT sometimes will arrange information in a table out of order, which can make the data appear to have a different relationship than it really does.

**6. Learn to read between the lines.**

Often a science question will ask you to estimate an answer that’s not represented directly in a graphic. For example, let’s say a science question refers you to a table and asks for the stopping distance of a truck traveling at 55 mph. When you look at the table, you see that at 50 mph the braking distance for a truck is 250 feet and at 60 mph the stopping distance is 380 feet; however, the table doesn’t have an entry for 55 mph. In that case you have to interpolate (read between the lines) and look for a stopping distance in the answers that’s more than 250 feet but less than 380 feet.

**7. Read the paragraphs last.**

But remember, don’t read the paragraphs at all unless you need more explanation to make sense of the data presented in the graphics.

The only time you should read all of the paragraphs, and read them before the questions, is on a type of passage in which two or more “experts” disagree. Each expert, who may be a scientist, researcher, or student, will present results or theories which agree on some points and disagree on others. The “disagreeing experts” type of passage should be read in the same way you’d read a passage in the Reading section of the ACT.

- See more at: <https://benchprep.com/ACT/test/how-to-improve-your-act-science-score#sthash.oHQQkNwu.dpuf>